Tropospheric Working Group:
Air Quality (AQ) from Space

Conveners:

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Objectives and Goals

1) What is being done now for air quality?
2) What are the limitations and strengths of data for air quality issues?
3) Stimulate ideas/science/collaborations.
4) Give feedback to algorithm people.

Mandate for Air Quality (AQ) from Space?

⇒ ***The National Academies Decadal Survey:***

"Chemical weather has a direct impact in a number of areas of interest for this study, especially air quality and human health."

⇒ ***NASA named air quality as one of "12 applications of national priority".***

The Applied Sciences Program identifies practical uses of NASA-sponsored observations and science models "to provide decision support".

Instruments of Interest

TES Products: **O_3, CO**

OMI Products: **Trop NO_2, TCO, SO_2, H_2CO, aerosols**

***TES** – indirect applications (e.g., data assimilation & inverse modeling)*

***OMI** – "sees" boundary layer with limited efficiency, so more direct applications (e.g., emission estimates).*

TIGHT SCHEDULE!!!!

Please stay within your allotted time!

Your 1-2 slides are designed to stimulate discussion, not to make a formal presentation!

Your 5 min includes questions & time required to put on a microphone & load your file!

Bryan (= bad cop) will enforce time limits because he's far less pleasant than Ken (= good cop).

Discussions

Sessions

1) *Detection of Boundary Layer Trace Gases*
2) *Retrieval and AQ issues for OMI NO_2*
3) *Future work with Aura data for Air Quality*

Questions to Keep in Mind

a) Is the current data useful to EPA now?

b) What products would EPA like to have?

c) Who will fund the development of these data products? NASA? EPA?

Introductory Presentations

AQ : ***Ken Pickering/Joseph Vaughan/Shobha Kondragunta***

"What are the satellite data needs of the air quality community?"

Aerosols : ***Mian Chin***

"Possibilities and challenges in using satellite aerosol data for air quality."

Trace Gases : ***Randall Martin/Folkert Boersma***

"Successes and challenges in satellite remote sensing of trace gases for air quality applications."